

What Is Claimed Is:

- 1 1. A method for integrating at least one
2 remote of a microcellular communication system with
3 at least one face of a code division multiple access
4 (CDMA) communication system, said CDMA system being
5 capable of signal advancing, said method comprising
6 the steps of:
7 measuring fiber length and remote power
8 output;
9 interconnecting hardware between said at
10 least one remote and said at least one face;
11 performing calculations using data obtained
12 from said step of measuring to determine how much to
13 advance said CDMA signal;
14 translating said calculations to a database
15 for advancing a signal allowing said at least one
16 remote to communicate with said at least one face;
17 and
18 setting output levels of said CDMA system ,
19 said output levels determined based upon said
20 measurement data and said calculations.
- 1 2. The method of claim 1 further
2 comprising the step of testing said method for proper
3 operation.

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1 3. The method of claim 2 wherein said
2 step of testing further comprises testing said system
3 at said at least one face and at said at least one
4 remote.

1 4. The method of claim 1 wherein said
2 microcellular communication system further comprises
3 a stand alone microcellular communication system.

1 5. The method of claim 4 wherein said
2 step of interconnecting hardware further comprises
3 the steps of:

4 installing a combiner for each face to be
5 integrated;

6 connecting a meter to said CDMA system for
7 taking output power readings;

8 connecting a transmit cable to each of said
9 combiners;

10 connecting a receive cable to each of said
11 combiners; and

12 terminating said receive cable.

1 6. The method of claim 1 wherein said
2 microcellular communication system further comprises
3 a simulcast microcellular communication system.

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1 7. The method of claim 6 wherein said
2 step of interconnecting hardware further comprises
3 the steps of:
4 connecting a transmit cable to said at
5 least one face;
6 connecting a combiner to said transmit
7 cable;
8 connecting said transmit cable to an
9 interface module for said remote;
10 connecting a receive cable to said
11 interface module for said remote;
12 connecting a combiner to said receive
13 cable;
14 connecting an attenuator to said combiner;
15 connecting said attenuator to said receive
16 cable; and
17 connecting said receive cable to said at
18 least one face.

1 8. The method of claim 1 wherein said
2 step of measuring further comprises the steps of:
3 verifying said at least one remote is in
4 normal condition;
5 isolating said at least one face;
6 measuring said fiber length of said at
7 least one remote;
8 measuring said power output of said at
9 least one remote; and
10 recording additional data necessary for
11 said steps of performing calculations and
12 translating.

1 9. The method of claim 8 wherein said
2 step of measuring further comprises the steps of
3 recording said CDMA output power level.

1 10. The method of claim 1 wherein said
2 step of performing calculations further comprises the
3 steps of:

4 calculating propagation delay for a
5 transmit antenna for said at least one remote;

6 calculating propagation delay of a receive
7 antenna for said at least one remote;

8 selecting and recording a lowest value of
9 said propagation delay calculations for both said
10 transmit and said receive antennas;

11 calculating a maximum differential
12 delay of all delay calculations completed for said at
13 least one remote;

14 calculating a sector size;

15 determining a cell search window size;

16 calculating actual input analog composite
17 power;

18 determining total gain for said at least
19 one remote;

20 determining actual gain for said at least
21 one remote;

22 calculating CDMA input power for said at
23 least one remote; and

24 checking power calculations.

1 11. The method of claim 10 wherein for a
2 simulcast CDMA said step of selecting and recording a
3 lowest value of said propagation delay calculations
4 for both said transmit and said receive antennas
5 further comprises selecting a fixed value for said
6 propagation delay for each of said transmit and said
7 receive antennas, said fixed value based on an
8 equipment specification.

1 12. The method of claim 1 wherein said
2 step of translating further comprises the step of
3 updating a database for said at least one remote and
4 said at least one face to be integrated by loading
5 said database with values derived in said steps of
6 calculating and translating to compensate for time
7 delay by advancing said CDMA signal.

1 13. The method of claim 1 wherein said
2 step of setting output levels further comprises the
3 steps of:
4 ensuring output levels are properly set by
5 using values derived in said steps of measuring and
6 performing calculations; and
7 restoring said at least one face to normal
8 service.